WHAT IS CLAIMED IS:

1. An image encoding method of dividing image signals into blocks, performing an orthogonal transform of each block, reading resultant orthogonal transform coefficients to obtain a coefficient string, and performing entropy coding thereof, the image encoding method comprising:

a block selecting step of selecting a size of a block for the orthogonal transform, out of a plurality of blocks of different sizes;

a coefficient string dividing step of, when a block of a size larger than a minimum size is selected in the block selecting step, dividing a coefficient string in said block into a plurality of coefficient strings of a length equal to that of a coefficient string in a block of the minimum size; and

an encoding step of performing entropy coding adapted to the coefficient string in the block of the minimum size.

2. An image decoding method of decoding encoded data encoded by an image encoding method of dividing image signals into blocks, performing an orthogonal transform of each block, reading resultant orthogonal transform coefficients to obtain a coefficient string, and performing entropy coding

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thereof, the image decoding method comprising:

a block selecting step of selecting a size of a block for the orthogonal transform, out of a plurality of blocks of different sizes;

5      a decoding step for performing decoding of the encoded data by entropy coding adapted to a coefficient string in a block of a minimum size out of the plurality of blocks; and

a coefficient string constructing step of, when
10     a block of a size larger than the minimum size is selected in the block selecting step, constructing a coefficient string of the block of the larger size from a plurality of coefficient strings decoded in the decoding step.

15     3.   An image encoding apparatus of dividing image signals into blocks, performing an orthogonal transform of each block, reading resultant orthogonal transform coefficients to obtain a coefficient string, and performing entropy coding thereof, the
20     image encoding apparatus comprising:

block selecting means for selecting a size of a block for the orthogonal transform, out of a plurality of blocks of different sizes;

coefficient string dividing means for, when a
25     block of a size larger than a minimum size is selected by the block selecting means, dividing a

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coefficient string in said block into a plurality of coefficient strings of a length equal to that of a coefficient string in a block of the minimum size; and

5      encoding means for performing entropy coding adapted to the coefficient string in the block of the minimum size.

4.   The image encoding apparatus according to Claim 3, wherein the coefficient string dividing

10   means is configured to read coefficients of the coefficient string from the lowest in a low frequency region and assign the read coefficients one by one in order to the plurality of coefficient strings of the length equal to that of the coefficient string in the

15   block of the minimum size, thereby obtaining the divided coefficient strings.

5.   The image encoding apparatus according to Claim 3, wherein the coefficient string dividing means is configured to read coefficients of the

20   coefficient string from the lowest in a low frequency region and repeatedly perform reading of coefficients by the number equal to the number of coefficients in the coefficient string in the block of the minimum size to obtain a divided coefficient string, thereby

25   obtaining the divided coefficient strings.

6.   An image decoding apparatus of decoding

encoded data encoded by an image encoding method of dividing image signals into blocks, performing an orthogonal transform of each block, reading resultant orthogonal transform coefficients to obtain a coefficient string, and performing entropy coding thereof, the image decoding apparatus comprising:

block selecting means for selecting a size of a block for the orthogonal transform, out of a plurality of blocks of different sizes;

decoding means for performing decoding of the encoded data by entropy coding adapted to a coefficient string in a block of a minimum size out of the plurality of blocks; and

coefficient string constructing means for, when a block of a size larger than the minimum size is selected by the block selecting means, constructing a coefficient string of the block of the larger size from a plurality of coefficient strings decoded by the decoding means.

7. The image decoding apparatus according to Claim 6, wherein the coefficient string constructing means is configured to read coefficients in the plurality of coefficient strings decoded by the decoding means, from the lowest in a low frequency region and write the coefficients read out of the respective coefficient strings, one by one in order

into a new coefficient string from the low frequency region, thereby obtaining the constructed coefficient string.

8. The image decoding apparatus according to Claim 6, wherein the coefficient string constructing means is configured to read coefficients in the plurality of coefficient strings decoded by the decoding means, from the lowest in a low frequency region and write the read coefficients in units of the original coefficient strings into a new coefficient string from the low frequency region, thereby obtaining the constructed coefficient string.

9. An image encoding program for dividing image signals into blocks, performing an orthogonal transform of each block, reading resultant orthogonal transform coefficients to obtain a coefficient string, and performing entropy coding thereof, the image encoding program letting a computer execute:

a block selecting step of selecting a size of a block for the orthogonal transform, out of a plurality of blocks of different sizes;

a coefficient string dividing step of, when a block of a size larger than a minimum size is selected in the block selecting step, dividing a coefficient string in said block into a plurality of coefficient strings of a length equal to that of a

coefficient string in a block of the minimum size; and

an encoding step of performing entropy coding adapted to the coefficient string in the block of the minimum size.

10. An image decoding program for decoding encoded data encoded by an image encoding method of dividing image signals into blocks, performing an orthogonal transform of each block, reading resultant orthogonal transform coefficients to obtain a coefficient string, and performing entropy coding thereof, the image decoding program letting a computer execute:

a block selecting step of selecting a size of a block for the orthogonal transform, out of a plurality of blocks of different sizes;

a decoding step for performing decoding of the encoded data by entropy coding adapted to a coefficient string in a block of a minimum size out of the plurality of blocks; and

a coefficient string constructing step of, when a block of a size larger than the minimum size is selected in the block selecting step, constructing a coefficient string of the block of the larger size from a plurality of coefficient strings decoded in the decoding step.